WHAT IS CLAIMED IS:

1. A medical device, comprising:

an insertable portion capable of being inserted into an orifice associated with a body of a patient, the insertable portion comprising a waveguide structure operable to assist in guiding an optical signal into the body of the patient;

wherein the optical signal is used in a spectroscopic procedure.

2. The medical device of Claim 1, wherein the spectroscopic procedure is selected from the group consisting of a transmission measurement, a reflection measurement, a fluorescence measurement, and a near field microscopy measurement.

3. The medical device of Claim 1, wherein the waveguide structure assists in detecting a tissue abnormality within the body of the patient during the spectroscopic procedure.

4. The medical device of Claim 3, wherein the tissue abnormality comprises cancerous cells.

5. The medical device of Claim 1, wherein the waveguide structure assists in extracting a tissue abnormality from the body of the patient during the spectroscopic procedure.

6. The medical device of Claim 1, wherein the waveguide structure is selected from the group consisting

of an optical fiber, a hollow tube waveguide, an air core waveguide, and a planar waveguide.

7. The medical device of Claim 1, wherein the waveguide structure is an optical fiber and at least a portion of the optical fiber is selected from the group consisting of a ZBLAN fiber, a sulphide fiber, a selenide fiber, a telluride fiber, and a fused silica fiber.

8. The medical device of Claim 1, wherein at least a portion of the optical signal comprises a wavelength of 1.7 microns or more.

9. The medical device of Claim 1, wherein at least a portion of the optical signal comprises a wavelength in a mid-infrared wavelength range.

10. The medical device of Claim 1, wherein at least a portion of the optical signal comprises a wavelength that is at least partially absorbed by cells of the body of the patient.

11. The medical device of Claim 1, wherein the optical signal comprises a plurality of wavelengths.

12. The medical device of Claim 11, wherein the waveguide structure assists in comparing at least two of the plurality of optical signals to determine a signal-to-noise ratio of a spectroscopic measurement during the spectroscopic procedure.

13. The medical device of Claim 11, wherein the waveguide structure assists in facilitating spectroscopic measurements of the multiple wavelength optical signal at least at a known cancer-free area within the body of the patient and a suspect area within the body of the patient during the spectroscopic procedure.

14. The medical device of Claim 13, wherein the waveguide structure assists in facilitating a comparison of the spectroscopic measurements of the cancer-free area and the suspect area.

15. The medical device of Claim 1, wherein the medical device is selected from the group consisting of an endoscope, a colonoscope, a gastroscope, an enteroscope, a bronchoscope, a laryngoscope, a choledochoscope, a sigmoidoscope, a duodenoscope, a arthoroscope, a cystoscope, a hyteroscope, and a laparoscope.

16. The medical device of Claim 1, wherein the optical signal is generated using a pump laser that is selected from the group consisting of a Nd:YAG laser, a Nd:YLF laser, laser diodes, a semiconductor laser and a cladding pumped fiber laser.

17. The medical device of Claim 1, wherein the optical signal is generated using a pump laser that is selected from the group consisting of a continuous wave laser and a pulsed laser.

18. A medical device, comprising:

an insertable portion capable of being inserted into a body of a patient; and

a waveguide structure capable of being inserted into the insertable portion and capable of guiding an optical signal into the insertable portion inserted into the body of the patient, wherein the optical signal is used in a medical surgical procedure.

19. The medical device of Claim 18, wherein the insertable portion has an inner wall and an outer wall, and the waveguide structure passes within the outer wall of the insertable portion.

20. The medical device of Claim 18, wherein the waveguide structure assists in extracting a tissue abnormality from the body of the patient during the surgical procedure.

21. The medical device of Claim 18, wherein the surgical procedure is based at least in part on an optical transmission property of cells.

22. The medical device of Claim 18, wherein the waveguide structure assists in ablating cells from the body of the patient during the surgical procedure.

23. The medical device of Claim 18, wherein the waveguide structure is selected from the group consisting of an optical fiber, a hollow tube waveguide, an air core waveguide, and a planar waveguide.

24. The medical device of Claim 18, wherein the waveguide structure is an optical fiber, and at least a portion of the optical fiber is selected from the group consisting of a ZBLAN fiber, a sulphide fiber, a selenide fiber, a telluride fiber, and a fused silica fiber.

25. The medical device of Claim 18, wherein at least a portion of the optical signal comprises a wavelength of 1.7 microns or more.

26. The medical device of Claim 18, wherein at least a portion of the optical signal comprises a wavelength in a mid-infrared wavelength range.

27. The medical device of Claim 18, wherein at least a portion of the optical signal comprises a wavelength that is at least partially absorbed by tissue of the body of the patient.

28. The medical device of Claim 18, wherein the optical signal comprises a plurality of wavelengths.

29. The medical device of Claim 18, wherein the optical signal is generated using a pump laser that is selected from the group consisting of a Nd:YAG laser, a Nd:YLF laser, laser diodes, a semiconductor laser and a cladding pumped fiber laser.

30. The medical device of Claim 18, wherein the optical signal is generated using a pump laser that is selected from the group consisting of a continuous wave laser and a pulsed laser.

31. The medical device of Claim 18, wherein the optical signal is generated using a Raman wavelength shifter.

32. A medical device capable of being used in a medical procedure, comprising:

a pump laser capable of generating a pump signal;

a Raman wavelength shifter coupled to the pump laser, at least a portion of the Raman wavelength shifter comprising a waveguide structure, wherein the Raman wavelength shifter generates an output optical signal comprising one or more wavelengths that have a level of an optical transmission property with respect to an abnormal cell that is different than a level of the same optical transmission property with respect to a normal cell.

33. The medical device of Claim 32, wherein the output optical signal is used in a medical procedure selected from the group consisting of a diagnostic procedure, a spectroscopic procedure, and a surgical procedure.

34. The medical device of Claim 32, wherein the optical signal comprises a wavelength of approximately 1.7 microns or more.

35. The medical device of Claim 32, wherein at least one wavelength of the output optical signal has a level of an optical transmission property with respect to a cancerous cell that is different from a level of the same optical transmission property with respect to a non-cancerous cell by at least two percent.

36. The medical device of Claim 32, wherein the waveguide structure is selected from the group consisting

of an optical fiber, a hollow tube waveguide, an air core waveguide, and a planar waveguide.

37. The medical device of Claim 32, wherein the waveguide structure is an optical fiber, and at least a portion of the optical fiber is selected from the group consisting of a ZBLAN fiber, a sulphide fiber, a selenide fiber, a telluride fiber, and a fused silica fiber.

38. The medical device of Claim 32, wherein the output optical signal is communicated to a portion of a body of a patient by one or more waveguide structures coupled to the Raman wavelength shifter.

39. The medical device of Claim 32, wherein at least a portion of the medical device is operable to be inserted into a body of a patient and operable to communicate at least a portion of the output optical signal to a portion of the body.

40. The medical device of Claim 32, wherein at least a portion of the output optical signal comprises a wavelength in the range of five (5) microns to seven (7) microns.

41. The medical device of Claim 32, wherein the difference between the optical transmission property in cancerous cells and the optical transmission property in non-cancerous cells of the output optical signal assists in facilitating a selective ablation of cancerous cells from the body of the patient during a medical procedure.

42. A mid-infrared light source, comprising:

a Raman wavelength shifter operable to generate an optical signal comprising a mid-infrared wavelength, at least a portion of the Raman wavelength shifter comprising a ZBLAN waveguide.

43. The mid-infrared light source of Claim 42, wherein the optical signal comprises a wavelength of approximately 1.7 microns or more.

44. The mid-infrared light source of Claim 42, wherein the optical signal comprises a wavelength in the range of two (2) microns to ten (10) microns.

45. The mid-infrared light source of Claim 42, wherein the optical signal comprises a wavelength in the range of five (5) microns to seven (7) microns.

46. The mid-infrared light source of Claim 42, wherein the ZBLAN waveguide comprises at least a portion of a gain region of the light source.

47. The mid-infrared light source of Claim 42, wherein the Raman wavelength shifter further comprises:

a first reflector coupled to a first end of the ZBLAN waveguide; and

a second reflector coupled to a second end of the ZBLAN waveguide.

48. The mid-infrared light source of Claim 47, wherein coupling the first and second reflectors operates to form an optical cavity in the light source.

49. The mid-infrared light source of Claim 42, wherein the Raman wavelength shifter further comprises:

a reflector coupled to a first end of the ZBLAN waveguide; and

one or more optical gratings coupled to a second end of the ZBLAN waveguide.

50. The mid-infrared light source of Claim 42, wherein the Raman wavelength shifter further comprises:

one or more first optical gratings coupled to a first end of the ZBLAN waveguide; and

one or more second optical gratings coupled to a second end of the ZBLAN waveguide.

51. The mid-infrared light source of Claim 42, wherein the Raman wavelength shifter further comprises:

one or more reflectors coupled to a first end of the ZBLAN waveguide; and

a pulse source coupled to a second end of the ZBLAN waveguide.

52. The mid-infrared light source of Claim 51, wherein the pulse source is operable to provide an output signal having a pulse width in the range of two (2) nanoseconds to one hundred (100) milliseconds.

53. The mid-infrared light source of Claim 51, wherein the pulse source is operable to provide an output signal having a pulse repetition rate in the range of two (2) hertz to one hundred (100) megahertz.

54. The mid-infrared light source of Claim 42, further comprising a pump laser capable of generating a pump signal operable to pump the Raman wavelength shifter.

55. The mid-infrared light source of Claim 54, wherein the pump laser is selected from the group consisting of a continuous wave laser and a pulsed laser.

56. The mid-infrared light source of Claims 54, wherein the pump laser is selected from the group consisting of a Nd:YAG laser, a Nd:YLF laser, laser diodes, a semiconductor laser, and a cladding pump fiber laser.

57. The mid-infrared light source of Claim 42, wherein the Raman wavelength shifter is pumped by another Raman wavelength shifter comprising a waveguide that is substantially different than the ZBLAN waveguide.

58. The mid-infrared light source of Claim 42, wherein the Raman wavelength shifter is operable to communicate the optical signal to a portion of a body associated with a patient.

59. The mid-infrared light source of Claim 42, wherein the Raman wavelength shifter is coupled to one or more waveguides and wherein a coupling loss between the Raman wavelength shifter and the one or more waveguides comprises no more than five (5) decibels.

60. The mid-infrared light source of Claim 59, wherein the waveguide comprises one or more optical fibers.

61. The mid-infrared light source of Claim 59, wherein the optical signal is communicated to a portion of a body associated with a patient by the one or more waveguides coupled to the Raman wavelength shifter.

62. The mid-infrared light source of Claim 42, wherein the ZBLAN waveguide is selected from the group consisting of an optical fiber, a hollow tube waveguide, an air core waveguide, and a planar waveguide.

63. The mid-infrared light source of Claim 42, wherein the ZBLAN waveguide is a single mode optical fiber.